

IN THE CLAIMS:

Claim 1 (currently amended): A metal building, comprising:

- a) a slab that supports a plurality of walls that are formed of generally vertically oriented metal panels, each wall having [[an]] a wall outer surface and [[an]] a wall inner surface, the metal panels including wall panels each having an enlarged planar front panel with inner and outer surfaces and opposing wall panel edge portions connected to opposite sides of the enlarged planar front panel, each wall panel edge portion having a side panel section with two spaced apart vertical rows of staggered slits or slots with gaps between slits or slots of one row aligning with slits or slots of the other row for retarding heat transfer across each side panel section;
- b) the metal panels including a plurality of ~~metal~~ corner panels having opposing corner edge portions that connect with a pair of wall panels at wall panel edge portions;
- c) ~~wherein~~ the wall panel edge portions of one wall panel connecting with edge portions of two other metal panels;
- d) each of the wall panel edge portions ~~panels~~ having flanged portions that extend toward each other;
- e) connections that join the metal panels together being defined by interlocking sections that are Z-shaped and that extend transversely with respect to the wall outer surface;
- f) the wall inner surface being defined by a veneer that is connected to the metal panels at the flanged portions; and
- g) ~~a cover that attaches to the walls and shields at least part of the interior~~ an insulation layer cladding the inner surface of each enlarged planar front panel between the opposing wall panel edge portions.

Claim 2 (original): The metal building of claim 1 wherein at least one wall has a window, wherein a plurality of short wall panels are below the window.

Claim 3 (currently amended): The metal building of claim 1 wherein at least one wall has a door, each wall including an upper longitudinal beam and a lower longitudinal beam, each beam having a web and a pair of opposite flanges extending at about a right angle to the web, at least one flange of the lower beam having at least one L-shaped slot therein that extends partly to the web for draining water from the lower beam.

Claim 4 (original): The metal building of claim 2 wherein the wall panels and the window each have a width, the window width being greater than the width of the plurality of short wall panels that are positioned below the window.

Claims 5-6 (cancel).

Claim 7 (currently amended): The metal building of claim ~~[[5]]~~ 1 wherein at least one wall has a window with a plurality of short wall panels below the window, a wall panel of full vertical length of each side of the window and a truss above the window, the at least one wall further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window, at least one of the vertical columns having a column part with a recess for receiving part of the wall panel at one side of the window by a selected amount for setting an effective width opening of the window ~~wherein the distance between the columns is greater than the window width.~~

Claims 8-14 (canceled).

Claim 15 (currently amended): The metal building of claim 1 wherein each corner of the building has one of the corner panel sections panels forming an angle of about 90 degrees, ~~the panel sections having different dimensions~~ each corner panel comprising: one ending panel having one of the corner edge portions for connecting to an edge portion of an adjacent wall panel at a Z-shaped interlocking section, and an opposing edge portion extending to the corner; a starting panel having the other corner edge portion of the corner panel, and an opposing flange portion extending into the corner, an outside L-shaped panel engaged over the opposing edge portion of the one ending panel and over the opposing flange portion of the starting panel to form an outside of the corner; and an inside L-shaped panel spaced inwardly of the outside L-shaped panel to form an inside of the corner.

Claims 16-17 (canceled).

Claim 18 (currently amended): A metal building, comprising:

- a) an underlying support;
- b) a plurality of metal walls providing an outer wall surface;
- c) the walls supporting a roof;
- d) the metal walls connecting at corners;
- e) each metal wall being comprised of a plurality of metallic wall panels connected together at panel joints, each wall panel having a first section with opposing end portions and second and third sections attached respectively to the first section end portions, there being an insulation layer cladding an inner surface the first section between the end portions;
- f) each of said second and third sections extending away from the first section and having a Z-shaped portion;
- g) each Z-shaped section having a free end portion that carries at least one flange,

the flanges of the Z sections of a wall panel extending toward each other; and

h) at least one corner having a Z-shaped portion that interlocks with a Z-shaped portion of a wall panel, the corner comprising: one ending panel having one Z-shaped portion for connecting to an end portion of an adjacent wall panel, and an opposing edge portion extending to the corner; a starting panel having one Z-shaped portion for connecting to an end portion of an adjacent wall panel, and an opposing flange portion extending into the corner, an outside L-shaped panel engaged over the opposing edge portion of the one ending panel and over the opposing flange portion of the starting panel to form an outside of the corner; and an inside L-shaped panel spaced inwardly of the outside L-shaped panel to form an inside of the corner.

Claim 19 (canceled).

Claim 20 (original): The metal building of claim 18 further comprising a header that forms an interface between the wall panels and the underlying support, the header comprised of a plurality of flanges intersecting at generally right angles, one flange extending upwardly.

Claim 21 (original): The metal building of claim 20 wherein a pair of said flanges extend upwardly.

Claim 22 (original): The metal building of claim 20 wherein the header has a slotted portion.

Claim 23 (original): The metal building of claim 22 wherein the slotted portion includes a slot in the upwardly extending flange.

Claim 24 (original): The metal building of claim 22 wherein the header has multiple slotted portions.

Claim 25 (original): The metal building of claim 22 wherein a panel joint is positioned next to a slotted portion.

Claim 26 (original): The metal building of claim 25 wherein interlocking panels extend through slotted portions of the header at a joint.

Claim 27 (original): The metal building of claim 18 wherein one of said second and third sections has five flat sections.

Claims 28-30 (canceled).

Claim 31 (original): The metal building of claim 18 further comprising a header connected to the top of the wall panels.

Claim 32 (original): The metal building of claim 31 where each corner has two Z-shaped portions, each interlocking with a Z shaped portion of a wall panel.

Claim 33 (original): The metal building of claim 31 wherein a pair of said flanges extend upwardly.

Claims 34-35 (canceled).

Claim 36 (currently amended): A metal building, comprising:

a) an underlying support;

b) a plurality of metal walls providing an outer wall surface;

c) the walls supporting a roof;

d) the metal walls connecting at corners;

e) each metal wall being comprised of a plurality of metallic wall panels connected together at panel joints, each wall panel having a first section with opposing end portions and second and third sections attached respectively to the first section end portions;

f) each of second and third sections including a side panel with two spaced apart vertical rows of staggered slits or slots with gaps between slits or slots of one row aligning with slits or slots of the other row for retarding heat transfer across each side panel, each of said second and third sections also extending away from the first section and having a Z-shaped portion;

g) each Z-shaped section having a free end portion that carries at least one flange, the flanges of the Z sections of a wall panel extending toward each other; and

h) at least one corner comprising a pair of vertically extended members of the metal outer wall surface, the other member not being part of the metal outer wall surface.

Claim 37 (currently amended): The metal building of claim 36 wherein at least one wall has a window, each wall including an upper longitudinal beam and a lower longitudinal beam, each beam having a web and a pair of opposite flanges extending at about a right angle to the web, at least one flange of the lower beam having at least one L-shaped slot therein that extends partly to the web for draining water from the lower beam.

Claim 38 (original): The metal building of claim 36 wherein at least one wall has a door.

Claim 39 (currently amended): The metal building of claim ~~[[36]]~~ 37 wherein the wall panels and the window each have a width, the window width being greater than the width of a plurality of the wall panels that are positioned below the window, at least one vertical column having a column part with a recess for receiving part of a wall panel at one side of the window by a selected amount for setting an effective width opening of the window.

Claim 40 (currently amended): The metal building of claim 39 further comprising a truss over the window ~~formed of a plurality of short wall panel sections that are attached above and below to truss beams~~, the truss having edge portions that connect to wall panel edge portions.

Claim 41 (canceled).

Claim 42 (original): The metal building of claim 40 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window, wherein the distance between the columns is greater than the window width.

Claim 43 (original): The metal building of claim 42 wherein each column supports an end portion of the truss.

Claims 44-49 (canceled).

Claim 50 (original): The metal building of claim 36 wherein each corner has corner panel sections forming an angle of about 90 degrees, the panel sections having different dimensions.

Claim 51 (original): The metal building of claim 36 wherein a plurality of the metal panels are clad with insulation.

Claim 52 (original): The metal building of claim 36 wherein a plurality of the metal panels are clad with insulation fastened to the metal panel with nails.

Claim 53 (original): The metal building of claim 51 wherein each wall panel has a void space in between the second and third sections and the insulation is positioned in the void space.

Claim 54 (original): The metal building of claim 52 wherein each wall panel has a void space in between the second and third sections and the insulation is positioned in the void space.

Claims 55-68 (canceled).

Claim 69 (currently amended): A metal building, comprising:

- a) a slab that supports a plurality of walls that are formed of generally vertically oriented metal panels having upper and lower ends, an upper longitudinal beam connected to the upper ends of the panels and a lower longitudinal beam connected to the lower ends of the panels, the lower longitudinal beam having a web that rests upon the slab and an outer flange having at least one L-shaped slot therein that extends partly to the web for draining water from the lower beam, each wall having an outer surface and an inner surface, the metal panels including wall panels having opposing wall panel edge portions;
- b) the metal panels including a plurality of metal corner panels having opposing corner edge portions that connect with a pair of wall panels at wall panel edge portions,

each corner panel comprising: one ending panel having one Z-shaped portion for connecting to an end portion of an adjacent wall panel, and an opposing edge portion extending to the corner; a starting panel having one Z-shaped portion for connecting to an end portion of an adjacent wall panel, and an opposing flange portion extending into the corner, an outside L-shaped panel engaged over the opposing edge portion of the one ending panel and over the opposing flange portion of the starting panel to form an outside of the corner; and an inside L-shaped panel spaced inwardly of the outside L-shaped panel to form an inside of the corner;

c) wherein the wall panel edge portions of one panel connecting with edge portions of two other metal panels;

d) each of the panels having flanged portions that extend toward each other;

e) connections that join panels together being defined by the Z-shaped interlocking sections ~~that are Z-shaped~~ and that extend transversely with respect to the wall outer surface;

f) the wall inner surface being defined by a veneer that is connected to the metal panels at the flanged portions; and

g) a cover that attaches to the walls and shields at least part of the interior;

~~h) slotted portions on the lower longitudinal beam that enable part of each wall panel to be positioned inside of the outer flange of the beam and part of each wall panel to be positioned on an outside surface of the outer flange of the longitudinal beam.~~

Claim 70 (original): The metal building of claim 69 wherein at least one wall has a window.

Claim 71 (original): The metal building of claim 69 wherein at least one wall has a door.

Claim 72 (original): The metal building of claim 70 wherein the wall panels and the window each have a width, the window width being greater than the width of a plurality of the wall panels that are positioned below the window.

Claim 73 (original): The metal building of claim 72 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

Claim 74 (original): The metal building of claim 70 wherein the wall panels and the window each have a width, the door width being greater than the width of a plurality of the wall panels that are positioned above the door.

Claim 75 (original): The metal building of claim 74 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window, wherein the distance between the columns is greater than the window width.

Claim 76 (original): The metal building of claim 75 wherein each column supports an end portion of the truss.

Claim 77 (canceled).

Claim 78 (original): The metal building of claim 69 wherein the building has at least one window and at least one door.

Claim 79 (original): The metal building of claim 78 wherein the wall panels and the window each have a width, the window width being greater than the combined width of a

plurality of the wall panels.

Claim 80 (original): The metal building of claim 79 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

Claim 81 (original): The metal building of claim 79 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window wherein the distance between the columns is greater than the window width.

Claim 82 (original): The metal building of claim 80 wherein each column extends downwardly from a position next to a side of the truss.

Claim 83 (original): The metal building of claim 68 wherein each corner has corner panel sections forming an angle of about 90 degrees, the panel sections having different dimensions.

Claim 84 (canceled).

Claim 85 (original): The metal building of claim 84 wherein each longitudinal beam includes a web and two spaced apart flanges.